## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of:

Verhaverbeke

Serial No.: 10/676,182

Confirmation No.: 6792

Filed:

September 30, 2003

For:

Dilute Sulfuric Peroxide At

Point-Of-Use

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Group Art Unit: 1792

Examiner:

Saeed T. Chaudhry

### MAIL STOP APPEAL BRIEF-PATENTS

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

#### CERTIFICATE OF MAILING OR TRANSMISSION

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Mail Stop APPEAL BRIEF-PATENTS, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, or electronically transmitted to the U.S. Patent and Trademark Office via EFS-Web to the attention of Examiner Saeed T. Chaudhry, on the date shown below.

12/12/08 Date

Signature

# REQUEST FOR REHEARING AFTER REVIEW OF THE DECISION MAILED NOVEMBER 28, 2008

Applicants submit this Request for Rehearing After Review of the Decision Mailed November 28, 2008 on grounds that the Board of Patent Appeals and Interferences errs in affirming the decision of the Examiner of Group Art Unit 1792 dated November 5, 2007. Please charge any fees that may be required to make this Request timely and acceptable to Deposit Account No. 20-0782/APPM/008284/KMT.

The Argument for rehearing begins on page 2 of this request. The Conclusion is on page 3 of this Request.

### ARGUMENT

The Board errs in affirming all rejections made by the Examiner on grounds that it would have been obvious to one of ordinary skill in the art at the time of the invention to have manipulated the conditions (e.g., concentration and rates of addition) used for mixing the sulfuric acid, hydrogen peroxide and hydrogen fluoride solutions in each of the primary references such that the temperature rise of the resulting solution was 3° C or less than the temperatures of the original components (Decision at p. 5).

The primary references disclose etching compositions that include sulfuric acid, hydrogen fluoride and hydrogen peroxide. The primary references fail to disclose, teach or suggest a method of forming a cleaning (etching) solution wherein an intermediate solution comprising 70% or less by weight sulfuric acid and hydrofluoric acid is mixed with a hydrogen peroxide solution. All of the prior art references form their compositions using 97% or 98% concentrated aqueous sulfuric acid as is commercially available (see Kuhn-Kuhnenfeld, column 1, lines 48-53). While Kuhn-Kuhnenfeld discusses the problem of spontaneous temperature rise, the solution to this problem that is offered by Kuhn-Kuhnenfeld is to slowly mix the concentrated sulfuric acid with the hydrogen peroxide solution, which fails to teach or suggest the present invention wherein the sulfuric acid is provided in a less concentrated solution prior to mixing with the hydrogen peroxide solution.

By reducing the concentration of the sulfuric acid prior to adding the aqueous sulfuric acid with the hydrogen peroxide solution, much of the heat of dilution of the sulfuric acid is released prior to mixing with hydrogen peroxide and cannot damage the hydrogen peroxide. The cited references do not suggest using dilute sulfuric acid as claimed by Applicant. Moreover, the Board errs in concluding that a method of making a solution without excessive heating by using dilute sulfuric acid is suggested by the references if known methods using concentrated sulfuric acid can make the same solution without excessive heating.

Therefore, all rejections are affirmed by the Board in error and reversal of the rejections is respectfully requested.

### Conclusion

For the reasons presented above and in Applicants Briefs and Oral Argument, Applicants respectfully submit that the rejections of claims 1-5, 9-14, 17-20, 24-30, 34-38, 40, 42, 43 and 45 are improper. Thus, Applicants respectfully request reversal of the rejections to permit allowance of claims 1-5, 9-14, 17-20, 24-30, 34-38, 40, 42, 43 and 45.

Respectfully submitted,

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